

# Prefab Timber and Engineered Wood in Building Construction



***Building blocks of the future –  
why timber is on the way up***

***Ric Sinclair, Forest and Wood Products Australia***

**FRAME**  
AUSTRALIA  
**2014**

**Frame Australia 2014 Conference and Exhibition**

# OUTLINE – Building blocks

- *Growing support for wood products*
  - *Political leaders*
  - *Building specifiers*
  - *Consumers*
  - *Regulators*
- *Improved international linkages*
- *Individuals are making a difference*
- *Systematically addressing key barriers*
- *Opportunities for the supply chain*





# Things in common



Prefab Timber and Engineered Wood in Building Construction

# Words of support

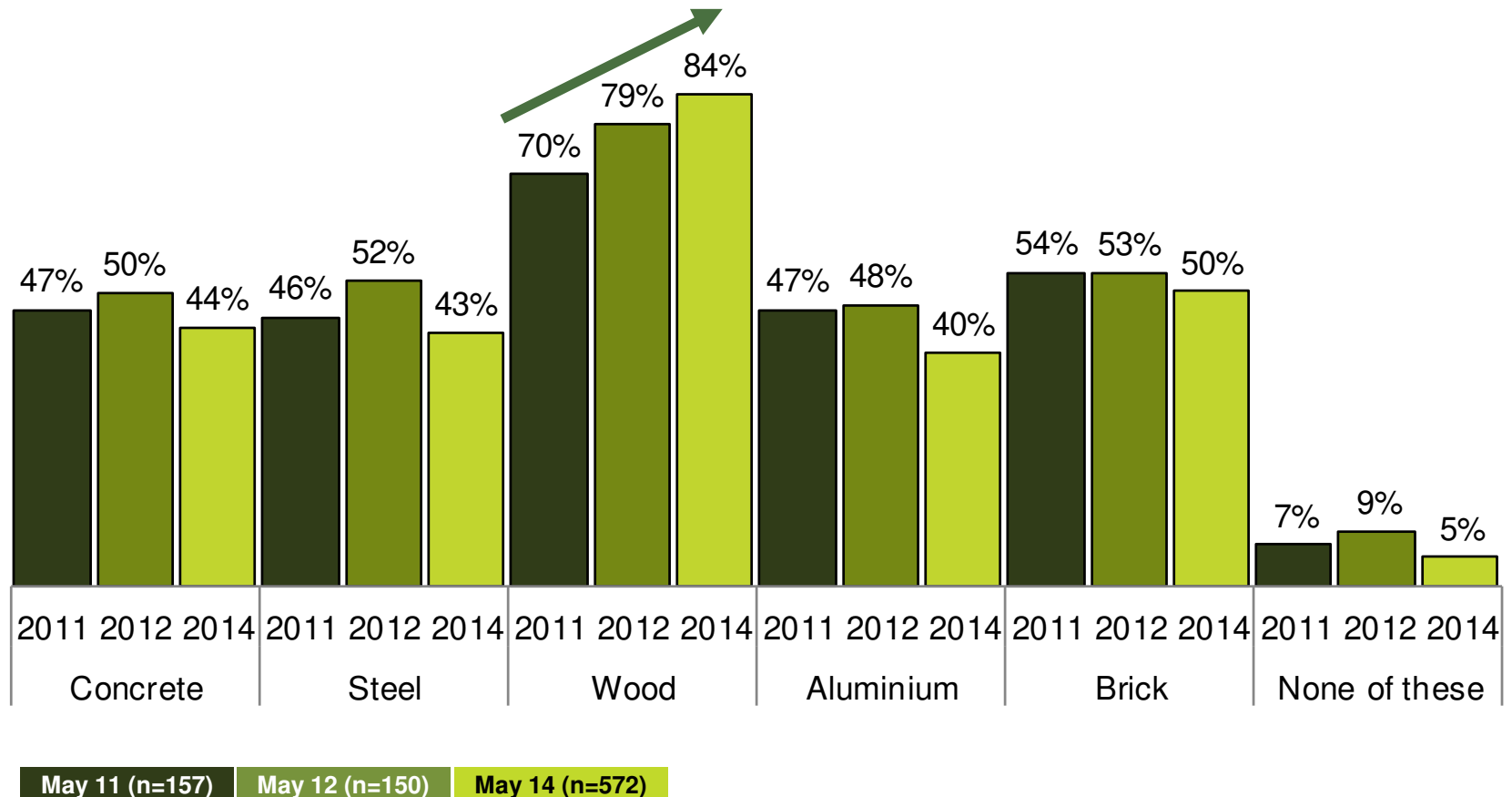
*Wood may be one of the world's oldest building materials, but it is now also one of the most advanced. Building stronger markets for innovative new wood products supports sustainable forestry, helps buffer reduce greenhouse gas emissions, and puts rural America at the forefront of an emerging industry.*

Tom Vilsack, US Agriculture Secretary (March 2014)

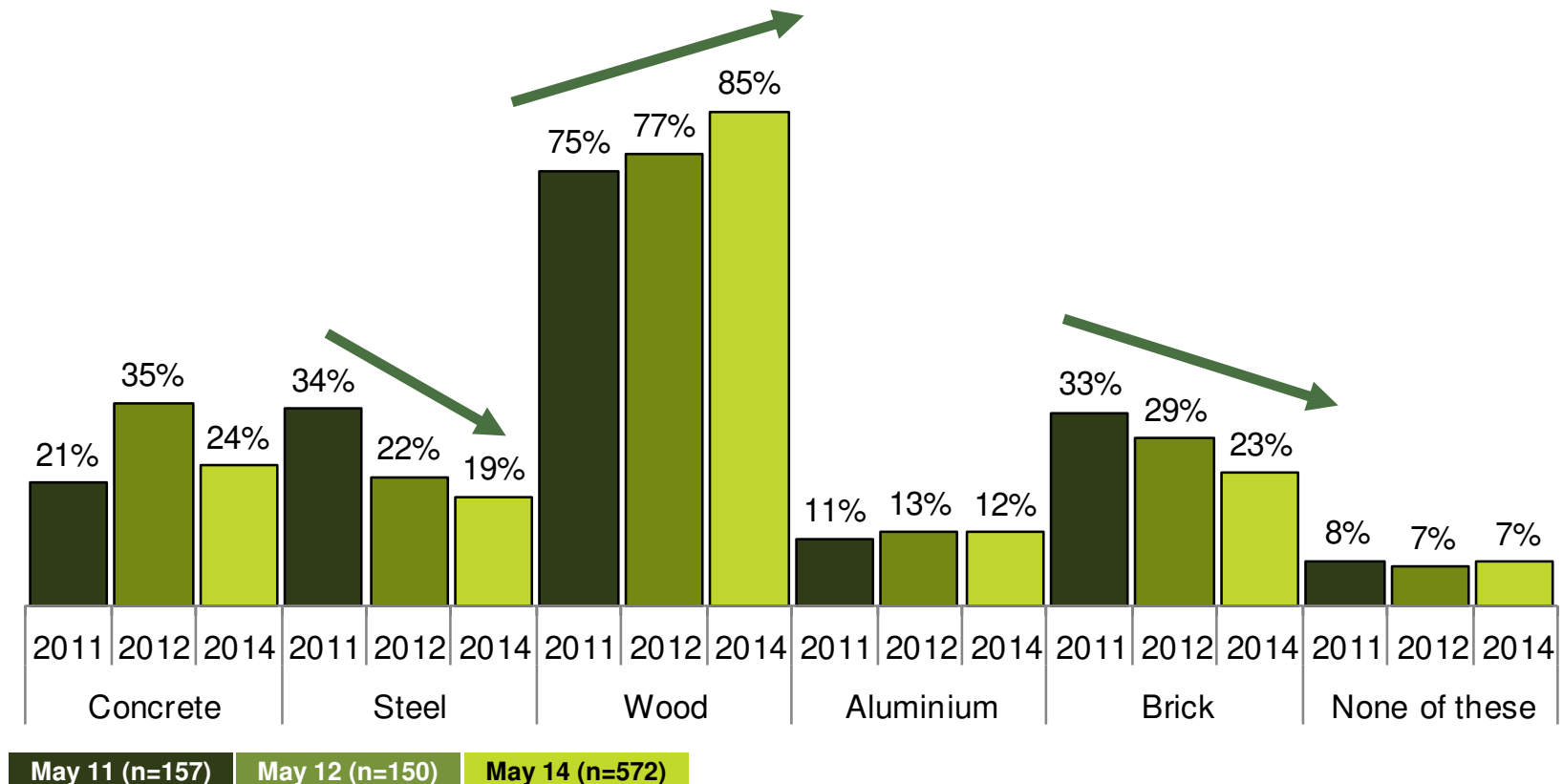
*I came to appreciate the forest wasn't just a place of beauty, but it was a source of resources; of the ultimate renewable resource, of the ultimate biodegradable resource. ... when I look out tonight at an audience of people who work with timber ... I see people who are the ultimate conservationists. That's what I see and I want to salute you.*

Tony Abbott, Prime Minister (March 2014)

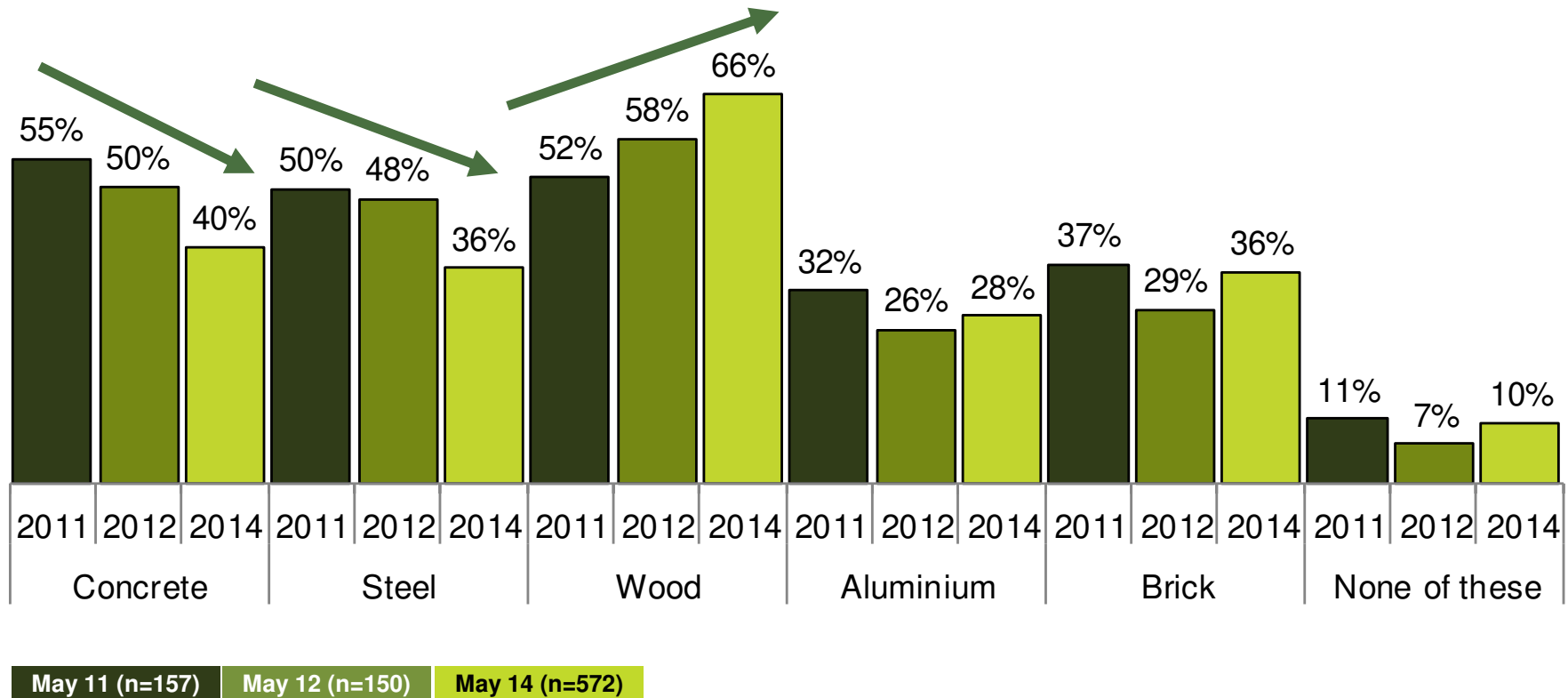
# How building specifiers rate the visual aesthetics of building materials



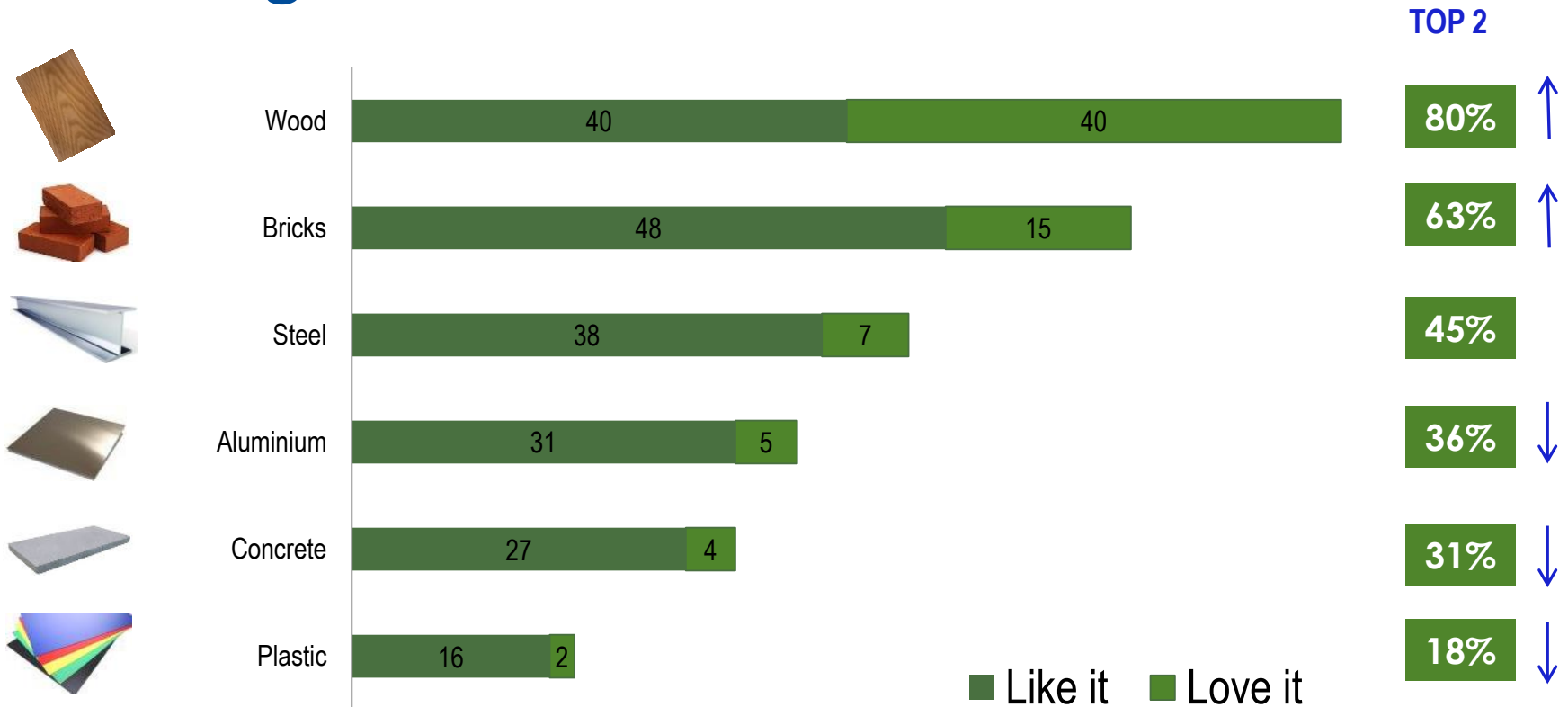
# How building specifiers rate the environmental sustainability of building materials



## How building specifiers rate the installed value for money of building materials



# How consumers rate the visual attractiveness of building materials



Base: Total sample, n=1,031



# How consumers perceive different materials

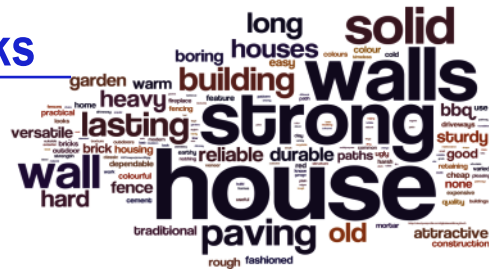
## Wood



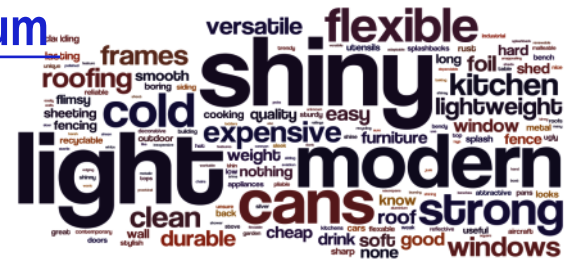
## Steel



## Bricks



# Aluminium



## Concrete

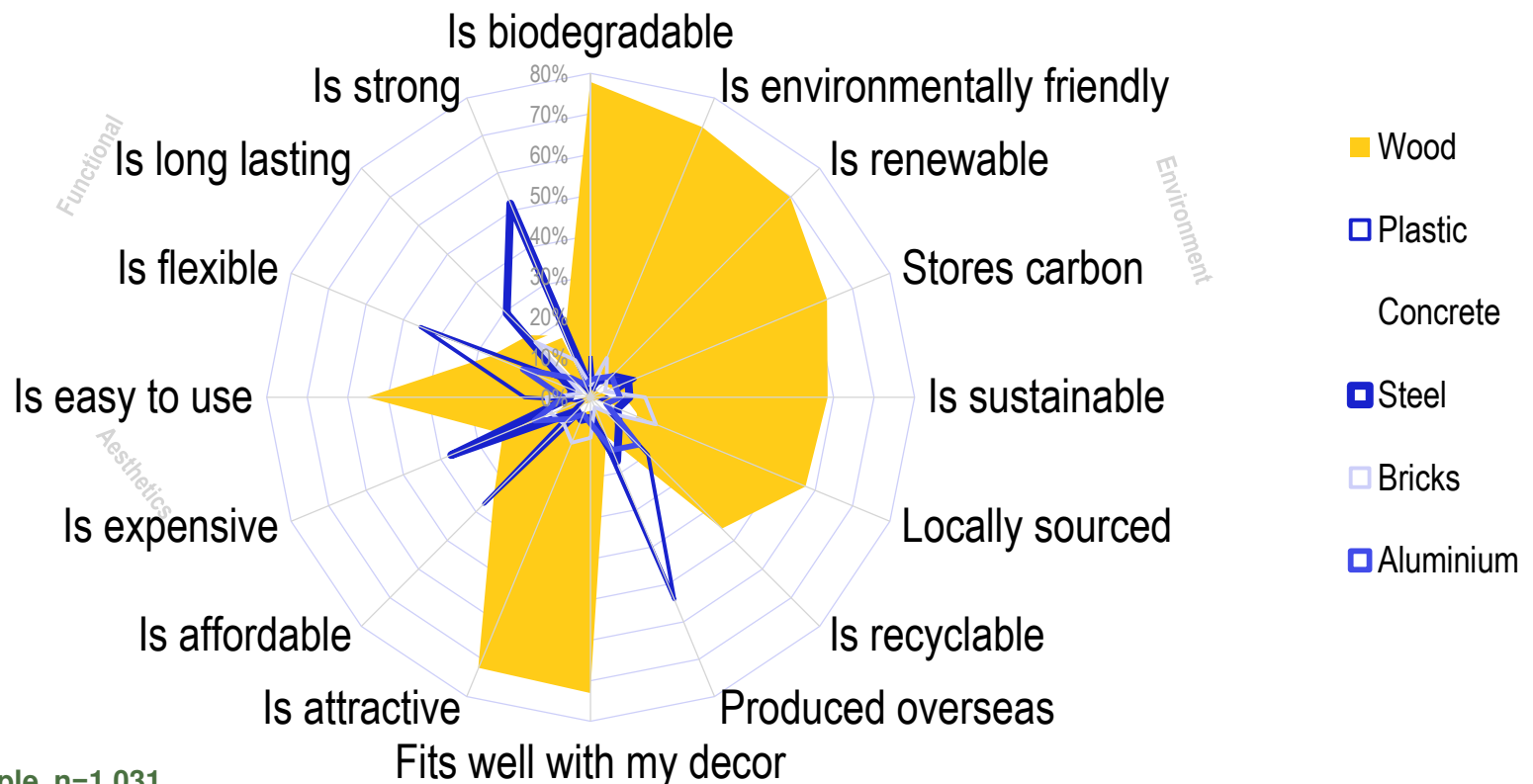


## Plastic



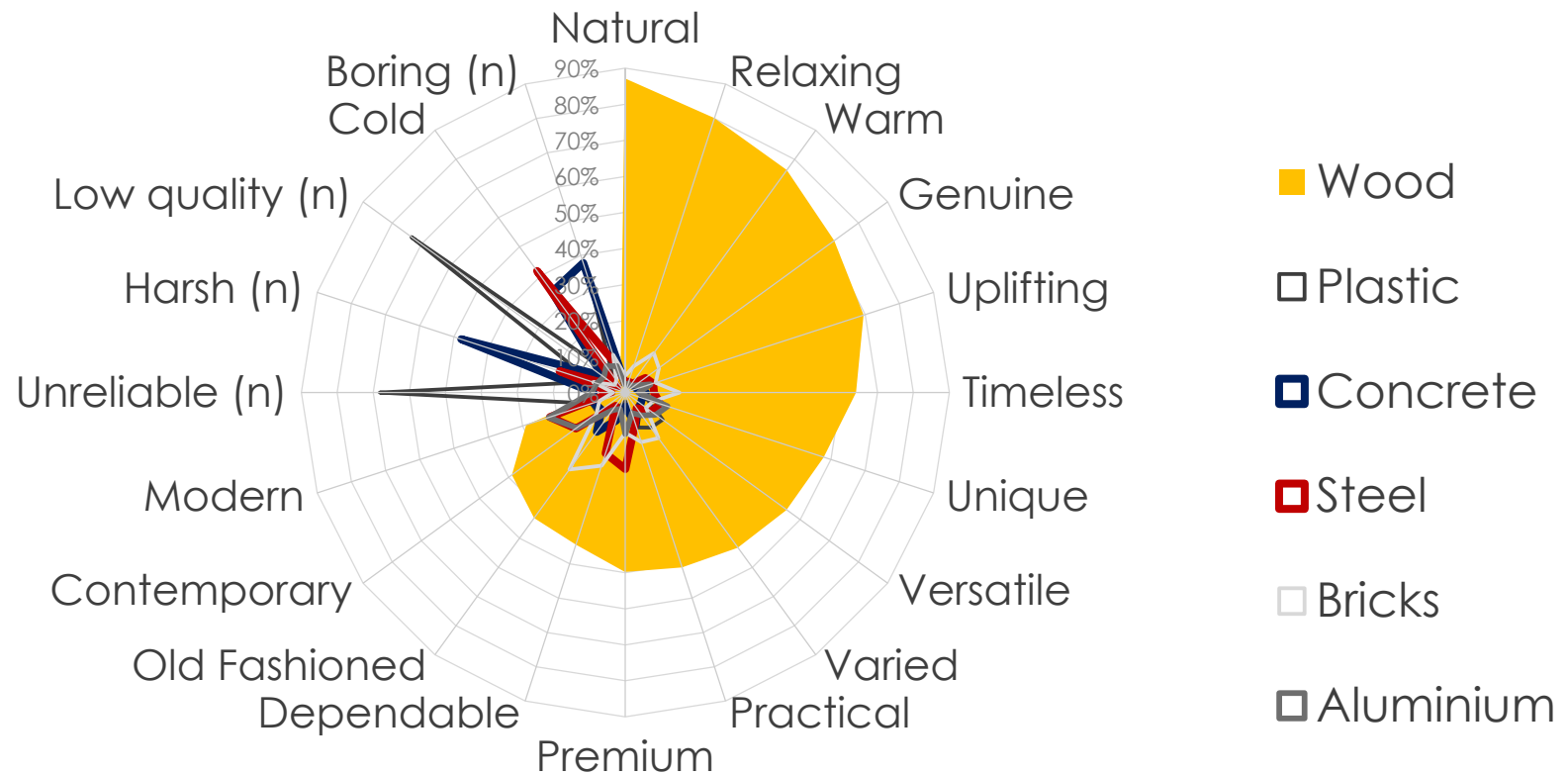
**QA11: When choosing an application/use of the following materials, what are the words that first come to you mind? (n=1031 for wood. All other materials n=515)**

# Consumers view wood to be more environmentally friendly than all other materials



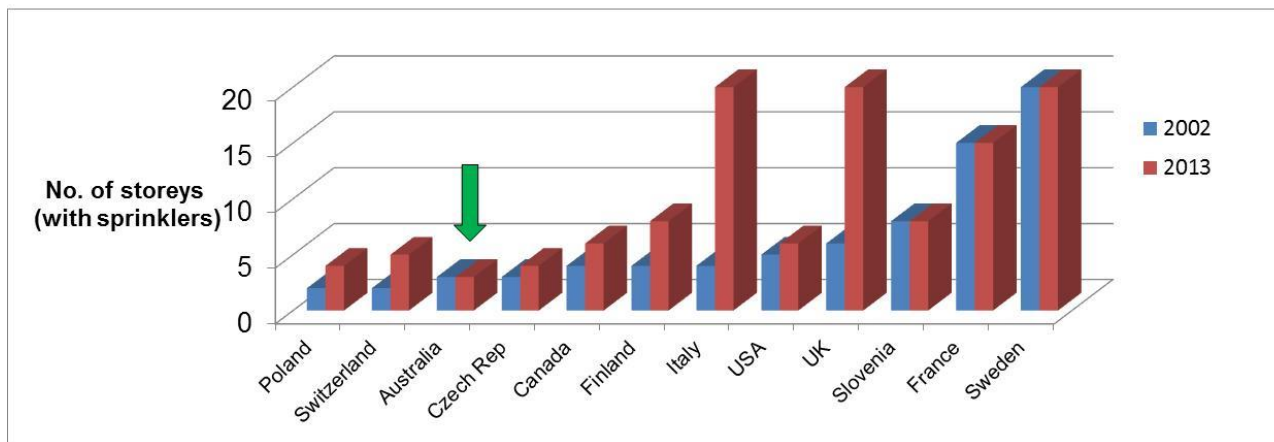
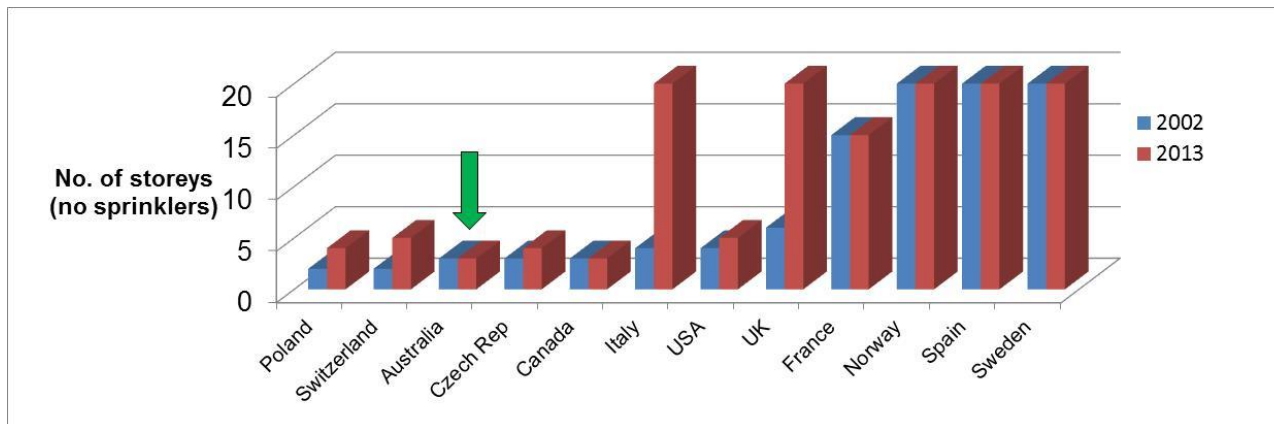
Base: Total sample, n=1,031

# Consumers view wood has only having positive emotional characteristics



Base: Total sample, n=1,031

# Building regulators around the world revising restrictions on the use of wood



# Need to work with Australian regulators for deemed-to-satisfy for sprinkler solutions

Country	Applicable Building Code	Maximum no. of storeys	
		Sprinklered	Non-sprinklered
Australia	2013 Building Code of Australia (BCA)	3	3
Austria	Austrian Building Codes	8 (*22m)	4
Canada	2010 National Building Code of Canada (NBCC)	4	3
Germany	2012 Federal Building Code	8 (*18m)	5
Sweden	2013 Planning and Building Act	8	2
UK	2010 Building Regulations	8	6
United States	2013 International Building Code (IBC)	5**	4**
	2012 National Fire Protection Association (NFPA) 5000	6**	5**

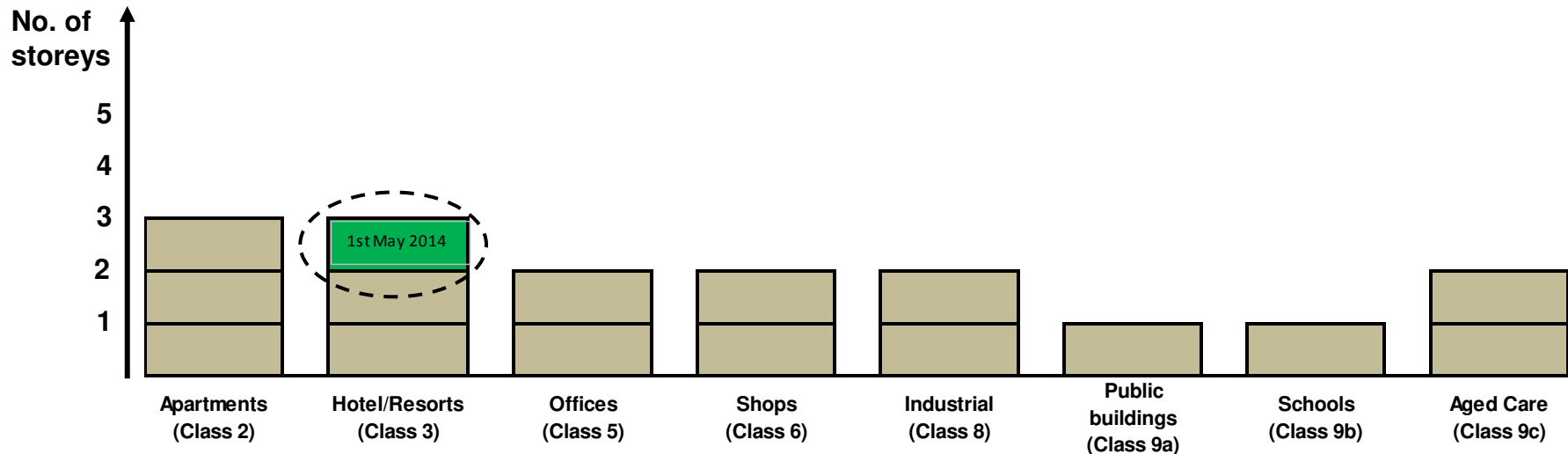
\* Indicates a height limit in addition to a maximum storey limit

\*\* Number of Heavy Timber storeys permitted

Source: Fire Safety Challenges of Tall Wood Buildings Dec 2013 - US Fire Protection Research Foundation



# Recent changes to BCA create new opportunities for wood from 1st May 2014



*FWPA is working with ABCB and State regulators seek further deemed-to-satisfy solutions across all building classes to allow increased heights for both light-weight and massive timber systems*

## International collaboration to grow the market

- Better linkages between wood promotion groups, researchers, regulators and industry
- Culture remains a key barrier to wood construction in many countries
- Standards and codes are essential but not enough
- Precedents have power

# Strong domestic and international champions to use wood in taller buildings



Andrew Waugh



Alex de Rijke

# *The role of FWPA*

## **VISION**

To ensure that forest and wood products are the preferred, sustainable material that meets the Australian market needs.

## **MISSION**

To work with stakeholders to identify and deliver collaborative programs that improve the competitiveness, and market and community acceptance, of forest and wood products.



**Forest & Wood  
Products Australia**  
*Knowledge for a sustainable Australia*

## FWPA is working to systematically address barriers to the use of wood

- Consumer promotion with Planet Ark
- Working closely with Standards Australia, ABCB and State building and fire regulators
- Addressing information gaps with strategic R&D
- Alliances with professional associations
- Teaching resources for tertiary and TAFEs
- WoodSolutions is the one-stop-resource
  - *Most visited wood promotion site*
  - *1.2 million page views*





## Challenges and opportunities for the wood products value chain

- Delivering improved solutions and/or systems
- Greater supply chain integration
  - *Domestic and international*
- Potential for business clusters
- Attracting new investment
- Using innovation and collaboration to improve competitiveness against alternative materials
- Re-building critical skills